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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/590,587	10/25/2006	Hideki Watanabe	S004-5852 (PCT)	8549
7590 Bruce L. Adams Adams & Wilks 17 Battery Place-Suite 1231 New York, NY 10004			EXAMINER COLILLA, DANIEL JAMES	
			ART UNIT 2854	PAPER NUMBER
			MAIL DATE 06/25/2010	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/590,587

Applicant(s)

WATANABE ET AL.

Examiner

Daniel J. Colilla

Art Unit

2854

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 April 2010.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 6-15 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☒ Claim(s) 1-3 and 6 is/are allowed.
6) ☒ Claim(s) 7 and 11-15 is/are rejected.
7) ☒ Claim(s) 8-10 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 01 April 2010 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB06)
Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, **the engagement groove formed in the flange member (as recited in claim 1) must be shown or the feature(s) canceled from the claim(s). In particular, since the claim is being allowed partially for this structure, it must be shown.** No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 7 is rejected under 35 U.S.C. 102(b) as being anticipated by Saito *et al.* (US 5,198,836).

With respect to claim 7, Saito *et al.* discloses a printer, comprising:

a main frame 1,2,3 having two spaced-apart opposed side

walls 1,2;

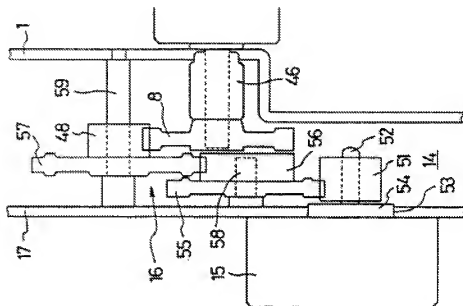
a platen roller 6 rotatably supported by the two side

walls 1,2 ; a print head 9 disposed opposite the platen roller 6; and a preassembled drive

unit 15,16,17 capable of being mounted in a preassembled state to the side wall 1 for

rotationally driving the platen roller 6 as shown below in the figure taken from Fig. 8 of

Saito *et al.*:



Saito *et al.* discloses that the preassembled drive unit comprises a support member 17 integrally formed with gear support shafts 58 and 59 (Saito *et al.*, col. 11, lines 5-16), a rotary motor 15 supported by the support member 17 and having a drive gear 51, and idler gears 55 and 57 rotatably mounted on respective gear support shafts 58 and 59 for transmitting rotational movement of the drive gear 51 to the platen roller 6, the drive gear 51 and the idler gears 55 and 57 being disposed in a space defined by the gear support member 17 and the one side wall 1 as shown above.

With respect to claim 11, Saito *et al.* discloses that the print head 9 is a thermal head having heat generating members 19 arranged in a line (the members 19 must be arranged in a line across the width of the print media in order to functionally print on the print media.

Claim Rejections - 35 USC § 103

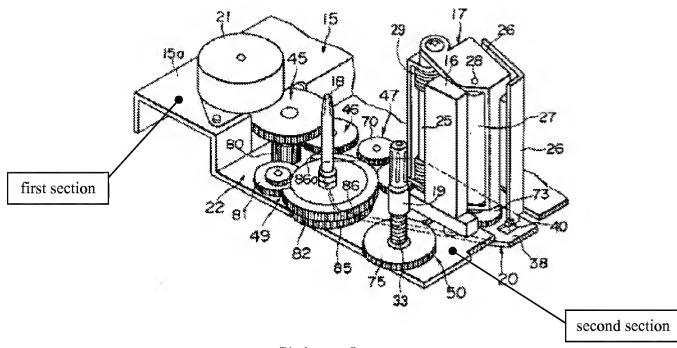
4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Saito *et al.* (US 5,198,836), as applied to claim 7 above, further in view of Miyazaki (JP 9-086000).

With respect to claim 12, Saito *et al.* discloses the claimed printer except for the first support member section being offset from a second support member section. However, Miyazaki teaches a printer with a motor for driving a platen including a support member having a first section to which the rotary motor 21 is mounted, and a second section offset from the first section and from which gear support shafts extend (although gear support shafts are not shown, the gears must inherently be supported by shafts of some type) as shown below in the Figure taken from Fig. 5 of Miyazaki:

【図5】



It would have been obvious to combine the teaching of Miyazaki with the printer disclosed by Saito et al. for the advantage of providing the motor and gears on the same side of the support so that they disclosed easily be serviced together.

6. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Saito *et al.* (US 5,198,836), as applied to claim 7 above, and further in view of Domel (US 2005/0022946).

With respect to claim 13, Saito *et al.* disclose the claimed printer except that they do not specify the material that the gear fitting member is made of. However, Domel teaches making a gearbox 50 from resin (Domel, paragraph [0021]). It would have been obvious to combine the teaching of Domel with the printer disclosed by Saito *et al.* because resin is lightweight, inexpensive and easily moldable.

7. Claims 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saito *et al.* (US 5,198,836), as applied to claim 7 above, and further in view of Wang (US 4,763,031).

With respect to claims 14-15, Saito *et al.* disclose the claimed printer except that they do not specify the material that the gear fitting member is made of. However, Wang teaches making a gearbox by die casting zinc alloy (Wang, Col. 1, lines 61-63). It would have been obvious to combine the teaching of Wang with the printer disclosed by Saito *et al.* because zinc alloy is rigid, non-corrosive and inexpensive.

Allowable Subject Matter

8. Claims 1-3 and 6 are allowed.

9. Claims 8-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. The following is a statement of reasons for the indication of allowable subject matter:

Claims 8-10 have been indicated as containing allowable subject matter primarily for the connecting flange having an opening in which is fitted a distal end of one of the gear support shafts.

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Daniel J. Colilla** whose telephone number is **571-272-2157**. The examiner can normally be reached on M and W, 7:30-5:00 and T, Th and F, 8:30-4:45.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Judy Nguyen** can be reached at **571-272-2258**. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

June 25, 2010

/Daniel J. Colilla/
Primary Examiner
Art Unit 2854